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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/768,279	01/25/2001	Bun Mizuhara	A276	3636

466 7590 07/07/2004

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EXAMINER	
MATTIS, JASON E	

ART UNIT	PAPER NUMBER
2665	5

DATE MAILED: 07/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/768,279	MIZUHARA, BUN	
	Examiner	Art Unit	
	Jason E Mattis	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-25 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-25 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 25 January 2001 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 3,4.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because of the following informalities.

Page 2 lines 6 of the specification describes "second reassembly unit 606" referring to item 606 in Figure 2; however, item 606 in Figure 2 is incorrectly labeled "first reassembly unit". It is recommended that this incorrect label be changed to "second reassembly unit".

Page 12 line 19 of the specification describes "second reassembly unit 501b" referring to item 501b in Figure 7; however item 501b in Figure 7 is incorrectly labeled "first reassembly unit". It is recommended that this incorrect label be changed to "second reassembly unit".

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "110" has been used to designate both an ATM line card in Figure 5 and a step in the method of Figure 14.

Further, reference characters "201", "210", "211", and "212" have been used to designate both functional blocks in Figure 5 and steps in the method of Figure 15.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing

should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 6, 19, and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 states, "a server card receiving an ATM cell including connection data, from said asynchronous transfer (ATM) mode". Claim 6 also states, "an Ethernet line card receiving an ATM cell including connection data, from said asynchronous transfer (ATM) mode". Claim 6 further states, "an asynchronous transfer mode line card

receiving an ATM cell from said asynchronous transfer (ATM) mode." In all cases it is unclear how a cell may be received from an asynchronous transfer mode. It is recommended that the claim be rewritten to state that ATM cells are received from the ATM network.

Both claims 19 and 20 begin with, "The recording medium as set forth in claim 1". Claim 1 has no mention of a recording medium; therefor it is unclear as to what claims 19 and 20 are referring to. It is recommended that claims 19 and 20 be changed to depend on claim 16, which includes a "recording medium".

Claim Rejections - 35 USC § 102

4. Claims 1, 4-6, 9-12, 15-16, 19-22, and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Ikeda et al. (U.S. Pat. 6711167).

With respect to claim 1, Ikeda et al. discloses an asynchronous transfer mode exchange **(See column 8 lines 4-17 and Figure 1 of Ikeda et al. for reference to a router, exchange, for use with an ATM network)**. Ikeda et al. also discloses both a next hop information adder and a shared medium frame generator **(See column 8 lines 18-42 and item 1 of Figure 1 for reference to segmentation and reassembly module 1, which performs the functions of both a next hop information adder and a shared medium frame generator)**. Ikeda et al. further discloses a first unit, which converts an ATM cell including connection data into a network layer packet **(See column 8 line 66 to column 9 line 6 and Figure 1 of Ikeda et al. for reference to the**

sending/receiving controller 8 in the SAR module 1 converting ATM cells into IP packets). Ikeda et al. also discloses a second unit, which extracts a network layer next hop out of the network layer packet **(See column 8 line 66 to column 9 line 17 and Figure 1 of Ikeda et al. for reference to CPU 2 extracting and analyzing the content of the IP header)**. Ikeda et al. further discloses a third unit, which converts the network layer next hop into associated connection data **(See column 9 lines 19-35 and Figure 1 of Ikeda et al. for reference to the sending/receiving controller 8, acting as the third unit by obtaining a VC number, connection data, which corresponds to the VCI/VPI, network layer next hop, of the received ATM cell and also refers to the VC table on the basis of the received VC number)**. Ikeda et al. also discloses a fourth unit, which receives the network layer packet from the second unit and the connection data from the third unit, and converts the thus received network layer packet and connection data into an ATM cell **(See column 9 lines 53-57 and Figure 1 of Ikeda et al. for reference to sending/received controller 8, acting also as a forth unit, converting the information into an ATM cell, which is then transferred to ATM25 interface 4_3, if the destination of the cell is ATM25)**. Ikeda et al. further discloses a fifth unit, which coverts the ATM cell into a network layer packet and extracts the connection data our of the ATM cell **(See column 9 lines 41-52 and Figure 1 of Ikeda et al. for reference to sending/receiving controller 8, acting also as a fifth unit by reassembling an IP packet and extracting the connection data for use in a lookup table)**. Ikeda et al. also discloses a sixth unit, which receives the connection data from the fifth unit and converts the received data into a shared medium

address **(See column 9 lines 41-52 and Figure 1 of Ikeda et al. for reference to sending/receiving controller 8, acting also as a sixth unit by using the connection data to determine which Ethernet interface 4_1 or 4_2 to send the packet to, meaning that it must have extracted an Ethernet address, which is a shared medium address, to be able to send the packet to the correct interface)**. Ikeda et al. further discloses a seventh unit, which receives the network layer packet from the fifth unit and the shared medium address from the sixth unit and coverts the received network packet and shared medium address into a shared medium frame **(See column 9 lines 41-52 and Figure 1 of Ikeda et al. for reference to sending/receiving controller 8, acting as a seventh unit by converting the IP packet and the address information into a format which is transmitted to an Ethernet network using Ethernet interfaces 4_1 and 4_2, meaning that the sending/receiving controller must have converted the packet into a shared medium frame that can be transmitted on an Ethernet network)**.

With respect to claim 4, Ikeda et al. discloses that the third unit converts the network layer next hop into the associated connection data in accordance with a predetermined rule **(See column 9 lines 18-35 of Ikeda et al. for reference to converting VCI/VPI of ATM cells into a VC number by using a predetermined table)**.

With respect to claim 5, Ikeda et al. discloses that a communication between the third unit and the sixth unit is made through an internal connection identifier **(See column 9 lines 18-35 of Ikeda et al. for reference to sending/receiving controller**

using a VC number, which is an internal connection identifier, to communicate information relating to the address or next hop of the ATM cell or IP packet).

With respect to claim 6, Ikeda et al. discloses an asynchronous transfer mode exchange **(See column 8 lines 4-17 and Figure 1 of Ikeda et al. for reference to a router, exchange, for use with an ATM network)**. Ikeda et al. also discloses an asynchronous transfer mode switch **(See column 8 lines 4-17 and Figure 1 of Ikeda et al. for reference to a router, which is a type of switch, for use with an ATM network)**. Ikeda et al. further discloses a server card receiving an ATM cell including connection data from the asynchronous transfer mode **(See column 8 lines 26-35 and Figure 1 of Ikeda et al. for reference to SAR 1 including a physical interface 7, which is an interface circuit for receiving data from an ATM communications network)**. Ikeda et al. also discloses an Ethernet line card receiving an ATM cell including connection data from the asynchronous transfer mode, and connecting to an Ethernet terminal directly or through an Ethernet router **(See column 8 lines 4-17 of Ikeda et al. for reference to first and second Ethernet interfaces 4_1 and 4_2 which receive data from the ATM network and transfer them to an Ethernet network terminal as an Ethernet frame)**. Ikeda et al. further discloses an asynchronous transfer mode line card receiving an ATM cell and connecting to an asynchronous transfer mode terminal directly of through an asynchronous transfer mode router **(See column 8 lines 26-35 and Figure 1 of Ikeda et al. for reference to SAR 1 including a physical interface 7, acting as an ATM line card, which is an interface circuit for receiving data from an ATM communications network)**. Ikeda et al. also discloses a

first unit, which converts the ATM cell into a network layer packet **(See column 8 line 66 to column 9 line 6 and Figure 1 of Ikeda et al. for reference to the sending/receiving controller 8 in the SAR module 1 converting ATM cells into IP packets)**. Ikeda et al. further discloses a second unit, which extracts a network layer next hop out of the network layer packet **(See column 8 line 66 to column 9 line 17 and Figure 1 of Ikeda et al. for reference to CPU 2 extracting and analyzing the content of the IP header)**. Ikeda et al. also discloses a third unit, which converts the network layer next hop into associated connection data **(See column 9 lines 19-35 and Figure 1 of Ikeda et al. for reference to the sending/receiving controller 8, acting as the third unit by obtaining a VC number, connection data, which corresponds to the VCI/VPI, network layer next hop, of the received ATM cell and also refers to the VC table on the basis of the received VC number)**. Ikeda et al. further discloses a fourth unit, which receives the network layer packet from the second unit and the connection data from the third unit and converts the received network layer packet and connection data into an ATM cell **(See column 9 lines 53-57 and Figure 1 of Ikeda et al. for reference to sending/received controller 8, acting also as a forth unit, converting the information into an ATM cell, which is then transferred to ATM25 interface 4_3, if the destination of the cell is ATM25)**. Ikeda et al. also discloses a fifth unit, which converts the ATM cell into a network layer packet and extracts the connection data out of the ATM cell **(See column 9 lines 41-52 and Figure 1 of Ikeda et al. for reference to sending/receiving controller 8, acting also as a fifth unit by reassembling an IP packet and extracting the connection data for use in a lookup**

table). Ikeda et al. further discloses a sixth unit, which receives the connection data from the fifth unit and converts the received connection data into a shared medium address **(See column 9 lines 41-52 and Figure 1 of Ikeda et al. for reference to sending/receiving controller 8, acting also as a sixth unit by using the connection data to determine which Ethernet interface 4_1 or 4_2 to send the packet to, meaning that it must have extracted an Ethernet address, which is a shared medium address, to be able to send the packet to the correct interface)**. Ikeda et al. also discloses a seventh unit, which receives the network layer packet from the fifth unit and the shared medium address from the sixth unit and coverts the received network layer packet and shared medium address into a shared medium frame **(See column 9 lines 41-52 and Figure 1 of Ikeda et al. for reference to sending/receiving controller 8, acting as a seventh unit by converting the IP packet and the address information into a format which is transmitted to an Ethernet network using Ethernet interfaces 4_1 and 4_2, meaning that the sending/receiving controller must have converted the packet into a shared medium frame that can be transmitted on an Ethernet network)**.

With respect to claim 9, Ikeda et al. discloses that the third unit converts the network layer next hop into the associated connection data in accordance with a predetermined rule **(See column 9 lines 18-35 of Ikeda et al. for reference to converting VCI/VPI of ATM cells into a VC number by using a predetermined table)**.

With respect to claim 10, Ikeda et al. discloses that a communication between the third unit and the sixth unit is made through an internal connection identifier **(See column 9 lines 18-35 of Ikeda et al. for reference to sending/receiving controller using a VC number, which is an internal connection identifier, to communicate information relating to the address or next hop of the ATM cell or IP packet)**.

With respect to claim 11, Ikeda et al. discloses a method of operating an asynchronous transfer mode exchange **(See column 8 lines 4-17 and Figure 1 of Ikeda et al. for reference to a router, exchange, operating with an ATM network)**. Ikeda et al. also discloses converting an ATM cell including connection data into a network data packet **(See column 8 line 66 to column 9 line 6 and Figure 1 of Ikeda et al. for reference to the sending/receiving controller 8 in the SAR module 1 converting ATM cells into IP packets)**. Ikeda et al. further discloses extracting a network layer next hop of the network layer packet **(See column 8 line 66 to column 9 line 17 and Figure 1 of Ikeda et al. for reference to CPU 2 extracting and analyzing the content of the IP header)**. Ikeda et al. also discloses converting the network layer next hop into associated connection data **(See column 9 lines 19-35 and Figure 1 of Ikeda et al. for reference to the sending/receiving controller 8 obtaining a VC number, connection data, which corresponds to the VCI/VPI, network layer next hop, of the received ATM cell and also refers to the VC table on the basis of the received VC number)**. Ikeda et al. further discloses converting the network layer packet an the associated connection data into an ATM cell **(See column 9 lines 53-57 and Figure 1 of Ikeda et al. for reference to sending/received controller 8**

converting the information into an ATM cell, which is then transferred to ATM25 interface 4_3, if the destination of the cell is ATM25). Ikeda et al. also discloses converting an ATM cell into a network layer packet **(See column 9 lines 41-52 and Figure 1 of Ikeda et al. for reference to sending/receiving controller 8 reassembling an IP packet and extracting the connection data for use in a lookup table)**. Ikeda et al. further discloses converting the connection data into a shared medium address **(See column 9 lines 41-52 and Figure 1 of Ikeda et al. for reference to sending/receiving controller 8 using the connection data to determine which Ethernet interface 4_1 or 4_2 to send the packet to, meaning that it must have extracted an Ethernet address, which is a shared medium address, to be able to send the packet to the correct interface)**. Ikeda et al. also discloses converting the network layer packet and the shared medium address into a shared medium frame **(See column 9 lines 41-52 and Figure 1 of Ikeda et al. for reference to sending/receiving controller 8, acting as a seventh unit by converting the IP packet and the address information into a format which is transmitted to an Ethernet network using Ethernet interfaces 4_1 and 4_2, meaning that the sending/receiving controller must have converted the packet into a shared medium frame that can be transmitted on an Ethernet network)**. Ikeda et al. further discloses steps (a) to (d) being carried out independently of steps (e) to (h) **(See column 8 lines 58 to column 9 line 57 of Ikeda et al. for reference to the steps of extracting and then sending an ATM cell, steps (a) to (d), being performed independently of the steps of extracting and then sending an Ethernet frame,**

steps (e) to (h), with the specific processes being performed independently depending of the destination of the received ATM cell).

With respect to claim 12, Ikeda et al. discloses that steps (e) and (f) are concurrently carried out **(See Figure 3 of Ikeda et al. for reference to the steps of converting the ATM cell an extracting routing information from the header being performed as a parallel processes).**

With respect to claim 15, Ikeda et al. discloses that step (c) is carried out in accordance with a predetermined rule **(See column 9 lines 18-35 of Ikeda et al. for reference to converting VCI/VPI of ATM cells into a VC number by using a predetermined table).**

With respect to claim 16, Ikeda et al. discloses a recording medium readable by a computer storing a program therein for cause a computer to act as an asynchronous transfer mode exchange **(See column 8 lines 43-51 and Figure 1 of Ikeda et al. for reference to a recording medium 5 that stores and executes a program to operate an ATM router, exchange, as disclosed by Ikeda et al.).** Ikeda et al. also discloses both a next hop information adder and a shared medium frame generator **(See column 8 lines 18-42 and item 1 of Figure 1 for reference to segmentation and reassembly module 1, which performs the functions of both a next hop information adder and a shared medium frame generator).** Ikeda et al. further discloses a first unit, which converts an ATM cell including connection data into a network layer packet **(See column 8 line 66 to column 9 line 6 and Figure 1 of Ikeda et al. for reference to the sending/receiving controller 8 in the SAR module 1 converting ATM cells into IP**

packets). Ikeda et al. also discloses a second unit, which extracts a network layer next hop out of the network layer packet **(See column 8 line 66 to column 9 line 17 and Figure 1 of Ikeda et al. for reference to CPU 2 extracting and analyzing the content of the IP header)**. Ikeda et al. further discloses a third unit, which converts the network layer next hop into associated connection data **(See column 9 lines 19-35 and Figure 1 of Ikeda et al. for reference to the sending/receiving controller 8, acting as the third unit by obtaining a VC number, connection data, which corresponds to the VCI/VPI, network layer next hop, of the received ATM cell and also refers to the VC table on the basis of the received VC number)**. Ikeda et al. also discloses a fourth unit, which receives the network layer packet from the second unit and the connection data from the third unit, and converts the thus received network layer packet and connection data into an ATM cell **(See column 9 lines 53-57 and Figure 1 of Ikeda et al. for reference to sending/received controller 8, acting also as a forth unit, converting the information into an ATM cell, which is then transferred to ATM25 interface 4_3, if the destination of the cell is ATM25)**. Ikeda et al. further discloses a fifth unit, which coverts the ATM cell into a network layer packet and extracts the connection data our of the ATM cell **(See column 9 lines 41-52 and Figure 1 of Ikeda et al. for reference to sending/receiving controller 8, acting also as a fifth unit by reassembling an IP packet and extracting the connection data for use in a lookup table)**. Ikeda et al. also discloses a sixth unit, which receives the connection data from the fifth unit and converts the received data into a shared medium address **(See column 9 lines 41-52 and Figure 1 of Ikeda et al. for reference to**

sending/receiving controller 8, acting also as a sixth unit by using the connection data to determine which Ethernet interface 4_1 or 4_2 to send the packet to, meaning that it must have extracted an Ethernet address, which is a shared medium address, to be able to send the packet to the correct interface). Ikeda et al. further discloses a seventh unit, which receives the network layer packet from the fifth unit and the shared medium address from the sixth unit and coverts the received network packet and shared medium address into a shared medium frame **(See column 9 lines 41-52 and Figure 1 of Ikeda et al. for reference to sending/receiving controller 8, acting as a seventh unit by converting the IP packet and the address information into a format which is transmitted to an Ethernet network using Ethernet interfaces 4_1 and 4_2, meaning that the sending/receiving controller must have converted the packet into a shared medium frame that can be transmitted on an Ethernet network).**

With respect to claim 19, Ikeda et al. discloses that the third unit converts the network layer next hop into the associated connection data in accordance with a predetermined rule **(See column 9 lines 18-35 of Ikeda et al. for reference to converting VCI/VPI of ATM cells into a VC number by using a predetermined table).**

With respect to claim 20, Ikeda et al. discloses that a communication between the third unit and the sixth unit is made through an internal connection identifier **(See column 9 lines 18-35 of Ikeda et al. for reference to sending/receiving controller**

using a VC number, which is an internal connection identifier, to communicate information relating to the address or next hop of the ATM cell or IP packet).

With respect to claim 21, Ikeda et al. discloses a recording medium readable by a computer storing a program for causing a computer to carry out a method of operating an asynchronous transfer mode exchange **(See column 8 lines 43-51 and Figure 1 of Ikeda et al. for reference to a recording medium 5 that stores and executes a program to operate an ATM router, exchange, as disclosed by Ikeda et al.)**. Ikeda et al. also discloses converting an ATM cell including connection data into a network data packet **(See column 8 line 66 to column 9 line 6 and Figure 1 of Ikeda et al. for reference to the sending/receiving controller 8 in the SAR module 1 converting ATM cells into IP packets)**. Ikeda et al. further discloses extracting a network layer next hop of the network layer packet **(See column 8 line 66 to column 9 line 17 and Figure 1 of Ikeda et al. for reference to CPU 2 extracting and analyzing the content of the IP header)**. Ikeda et al. also discloses converting the network layer next hop into associated connection data **(See column 9 lines 19-35 and Figure 1 of Ikeda et al. for reference to the sending/receiving controller 8 obtaining a VC number, connection data, which corresponds to the VCI/VPI, network layer next hop, of the received ATM cell and also refers to the VC table on the basis of the received VC number)**. Ikeda et al. further discloses converting the network layer packet an the associated connection data into an ATM cell **(See column 9 lines 53-57 and Figure 1 of Ikeda et al. for reference to sending/received controller 8 converting the information into an ATM cell, which is then transferred to ATM25 interface 4_3, if**

the destination of the cell is ATM25). Ikeda et al. also discloses converting an ATM cell into a network layer packet **(See column 9 lines 41-52 and Figure 1 of Ikeda et al. for reference to sending/receiving controller 8 reassembling an IP packet and extracting the connection data for use in a lookup table)**. Ikeda et al. further discloses converting the connection data into a shared medium address **(See column 9 lines 41-52 and Figure 1 of Ikeda et al. for reference to sending/receiving controller 8 using the connection data to determine which Ethernet interface 4_1 or 4_2 to send the packet to, meaning that it must have extracted an Ethernet address, which is a shared medium address, to be able to send the packet to the correct interface)**. Ikeda et al. also discloses converting the network layer packet and the shared medium address into a shared medium frame **(See column 9 lines 41-52 and Figure 1 of Ikeda et al. for reference to sending/receiving controller 8, acting as a seventh unit by converting the IP packet and the address information into a format which is transmitted to an Ethernet network using Ethernet interfaces 4_1 and 4_2, meaning that the sending/receiving controller must have converted the packet into a shared medium frame that can be transmitted on an Ethernet network)**. Ikeda et al. further discloses steps (a) to (d) being carried out independently of steps (e) to (h) **(See column 8 lines 58 to column 9 line 57 of Ikeda et al. for reference to the steps of extracting and then sending an ATM cell, steps (a) to (d), being performed independently of the steps of extracting and then sending an Ethernet frame, steps (e) to (h), with the specific processes being performed independently depending of the destination of the received ATM cell)**.

With respect to claim 22, Ikeda et al. discloses that steps (e) and (f) are concurrently carried out **(See Figure 3 of Ikeda et al. for reference to the steps of converting the ATM cell an extracting routing information from the header being performed as a parallel processes)**.

With respect to claim 25, Ikeda et al. discloses that step (c) is carried out in accordance with a predetermined rule **(See column 9 lines 18-35 of Ikeda et al. for reference to converting VCI/VPI of ATM cells into a VC number by using a predetermined table)**.

Claim Rejections - 35 USC § 103

5. Claims 2-3, 7-8, 13-14, 17-18, and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda et al. in view of Kshirsagar et al. (U.S. Pat. 6016319).

With respect to claims 2-3, 7-8, 13-14, 17-18, and 23-24, Ikeda et al. does not disclose a relation between the network layer hop and the connection data and a relationship between the connection data and the shared medium address being defined by address resolution protocol.

Kshirsagar et al., in the field of communications, discloses using address resolution protocol to define a relation between addresses **(See column 1 lines 46-67 of Kshirsagar et al. for reference to using address resolution protocol to define a relationship between VPI/VCI and IP address and physical channel addresses)**.

Using address resolution protocol in an exchange has the advantage of allowing the exchange to route packets to destinations that have dynamic IP addresses.

It would have been obvious to one of ordinary skill in the art at the time of the invention, when presented with the work of Kshirsagar et al., to combine the use of address resolution protocol, as suggested by Kshirsagar et al., with the ATM exchange and method of operating an exchange of Ikeda et al., with the motivation being to allow the exchange to route packets to destinations that have dynamic IP addresses.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Katsube et al. (U.S. Pat. 6188689) discloses a system and method of transferring both Ethernet frames and ATM cells in a router. Chang (U.S. application 09344608) discloses a system and method for transmitting packets between Ethernet and ATM networks.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason E Mattis whose telephone number is (703) 305-8702. The examiner can normally be reached on M-F 8AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (703) 308-6602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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